

IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF PENNSYLVANIA

ERIE COUNTY ENVIRONMENTAL  
COALITION, PENNENVIRONMENT,  
INC. and THE GAIA DEFENSE LEAGUE,  
Plaintiffs

v.

MILLCREEK TOWNSHIP SEWER  
AUTHORITY AND MILLCREEK  
TOWNSHIP,  
Defendants

CIVIL ACTION NO. 05-59 ERIE  
ELECTRONICALLY FILED  
JUDGE COHILL

**AFFIDAVIT OF GEORGE W. RIEDESEL**

COMMONWEALTH OF PENNSYLVANIA )  
 ) ss:  
COUNTY OF ERIE )

I, GEORGE W. RIEDESEL , first being duly sworn on oath and under penalty of perjury,  
hereby states as follows:

1. I am the Executive Director of the Millcreek Township Sewer Authority ("MTSA") and the Millcreek Water Authority. I have been Executive Director/Manager of MTSA since June 8, 1998.

2. I received a B.S Degree in Civil Engineering from the University of Cincinnati in 1972. I am a registered Professional Engineer in the Pennsylvania, New York and Ohio. Since

receiving my degree in civil engineering, I have spent much of my professional life working on the operation, planning and construction of sanitary sewer systems.

3. Upon graduation from college, I was employed with a private consulting firm in Columbus, Ohio, where he was assigned to be the City Engineer for Worthington, Ohio. In that capacity, I began my work related to sewer systems. From 1974 to 1977, I was the Planning and Department Head for Portage County, Ohio. From 1977 to 1982, as an engineer employed by Consoer Townsend & Associates, I was involved in all aspects of sanitary sewer work for the New Castle Sanitation Authority, Shenango Township Sewer Authority and the Union Township Sewer Authority.

4. From 1982 to 1998, Mr. Riedesel was the Director of Public Works and County Engineer for Chautauqua County, New York. As Director of Public Works and County Engineer, I was responsible for the direct operation of two existing sewer systems in Chautauqua County. My work also included planning and feasibility studies, consolidation, pretreatment, industrial development and expansion for various sewer systems.

5. The MTSA is a municipal authority organized and existing under the Pennsylvania Municipality Authorities Act since June 4, 1956. The MTSA owns the Millcreek sanitary sewer system ("Millcreek sewer system"). Pursuant to an agreement with Millcreek, the MTSA leases the Millcreek sewer system to Millcreek. Under the agreement between the MTSA and Millcreek, Millcreek is responsible for operating and managing the Millcreek sewer system.

6. The Millcreek sewer system serves most of the residents and businesses located within Millcreek Township. However, there remain areas of Millcreek Township that are not

served by the Millcreek sewer system, but instead rely upon on-site septic or other types of on-site sanitary disposal systems.

7. The Millcreek sewer system is comprised of 374 miles of sewer lines serving Millcreek Township. The Millcreek sewer system is designed to accept only sanitary and certain approved industrial wastewater.

8. The Millcreek sewer system is not a "combined sewer system". A combined sewer system is a sewer system intentionally designed to transport both wastewater and storm water. Typically, such a combined sewer system is designed with overflows that allow the system to discharge, into a nearby body of water, when storm water flows in the system exceed the capacity of the system; these are known as "combined sewer overflows" or "CSOs". The combined sewer overflow ("CSO") guidance published by EPA that Plaintiffs "encourage" Defendants to implement does not even apply to the Millcreek sewer system. The CSO guidance applies to sewer systems with "combined sewer overflows". The Millcreek sewer system is not a combined sewer system.

9. Although the Millcreek sewer system is not a "combined sewer system", storm water finds its way into the system through inflow and infiltration. Inflow is surface storm water that enters a sewer system through direct connections, such as illegal hookups from roof drains, basement sumps, damaged manholes or accidental connections with the storm sewer. Infiltration is groundwater that enters through cracks in the sewer system piping. The drawing included in the Appendix to Motion for Summary Judgment at App. 67 illustrates how inflow and infiltration penetrate a sanitary sewer system. The portion of the Millcreek sewer system that feeds into the Kearsarge pump station has a high amount of inflow and infiltration.

10. The Millcreek sewer system is part of a regional sewer system that is comprised of sewer systems from the City of Erie, Lawrence Park, Wesleyville, Harborcreek Township, Fairview Township, Fairview Borough and Summit Township, as well as Millcreek Township. All of the wastewater from these locations is sent to the wastewater treatment plant owned by the Erie Sewer Authority, and operated by the City of Erie.

11. The pump station at issue in this lawsuit is the Kearsarge pump station. During dry weather, the Kearsarge pump station has more than enough capacity to handle the normal sewage flows that enter it. The current capacity of the pump station is 3,750 gpm and the normal dry weather flows are between 700 gpm and 1,200 gpm.

12. By letter dated June 21, 1991, MTSA provided the Pennsylvania Department of Environmental Resources, now known as the Pennsylvania Department of Environmental Protection ("Department") with the details surrounding the construction of the Kearsarge bypass on the force main that leaves the Kearsarge pump station towards the City of Erie system. A true and correct copy of the June 21, 1991 letter to the Department is included in the Appendix to Motion for Summary Judgment at App. 90 - 91.

13. On January 7, 1992, MTSA, Millcreek and the Department entered into a Consent Order and Agreement ("1992 COA"). A true and correct copy of the 1992 COA is included in the Appendix to Motion for Summary Judgment at App. 99 - 120.

14. MTSA and Millcreek completed 22 projects under the 1992 COA. On those 22 projects, MTSA and Millcreek spent approximately \$8.9 million. In addition, MTSA's and Millcreek's share of the work performed by the City of Erie during that time period to expand the system's capacity is approximately \$20.8 million, of which, MTSA and Millcreek already have paid \$6.2 million.

15. Under the 1992 COA, MTSA and Millcreek also paid a civil penalty to the Department in the amount of \$15,000.00. The 1992 COA also imposed stipulated penalties for each overflow. Under the life of the 1992 COA, MTSA and Millcreek paid \$20,100.00 in stipulated penalties to the Department for overflows, and paid another \$500.00 to the Pennsylvania Fish and Boat Commission ("PA Fish Commission") for those same overflows. Thus, the total amount of civil penalties paid under the 1992 COA and to the PA Fish Commission \$35,600.00.

16. Despite having spent and being committed to spend nearly \$30 million, by the end of 2000, the overflow problem at the Kearsarge pump station was not solved. Thus, the removal of the overflow, which was the only project remaining to be completed under the 1992 COA, could not be completed. It was discovered that although the millions of dollars spent increased the capacity of the sewer system downstream of the Kearsarge pump station, there still was insufficient available capacity downstream of the Kearsarge pump station to accommodate the overflows at the pump station. Essentially, the projects that were completed did not work.

17. When the projects completed under the 1992 COA still did not enable MTSA and Millcreek to remove the overflow at the Kearsarge pump station, MTSA and Millcreek began to examine whether they could eliminate enough inflow and infiltration from the areas served by the Kearsarge pump station to reduce the flows into the Kearsarge pump station and thereby eliminate the overflows. Shortly after that effort began, the Department approached MTSA and Millcreek inquiring asking why the Kearsarge overflow had not been removed. At that time, the Department informed MTSA and Millcreek that inflow and infiltration work alone would not be acceptable to the Department to eliminate the overflow. As a result, MTSA, Millcreek and the Department entered into a new Consent Order and Agreement dated October 31, 2003 ("2003

COA"). A true and correct copy of the 2003 COA is included in the Appendix to Motion for Summary Judgment at App. 162 - 184.

18. On October 23, 2003, MTSA approved the execution of the 2003 COA at a public meeting. A true and correct copy of the meeting minutes and resolution of the MTSA approving execution of the 2003 COA is included in the Appendix to Motion for Summary Judgment at App. 741 - 743.

19. Under the 2003 COA, MTSA and Millcreek are required to remove the Kearsarge overflow. At the execution of the 2003 COA, MTSA and Millcreek paid a civil penalty in the amount of \$25,000.00. This \$25,000.00 civil penalty included penalties for overflows that occurred before the execution of the 2003 COA. The 2003 COA also provided for stipulated penalties for overflows that occurred subsequent to its execution. To date, MTSA and Millcreek have paid \$42,500.00 in additional civil penalties under the stipulated penalty provisions of the 2003 COA. Thus, the total civil penalties under the 2003 COA paid to date are \$67,500.00. In addition, the PA Fish Commission has imposed fines totaling \$21,250.00 since the execution of the 2003 COA, which have been paid.

20. The 2003 COA was appealed to the Pennsylvania Environmental Hearing Board by Summit Township, which has a sewer system that feeds into the Millcreek sewer system. This appeal was filed on December 1, 2003. The appeal was filed by the same law firm in which Paul Burroughs is a partner. Mr. Burroughs also is one of the individuals relied upon by the Plaintiffs in this case for standing. The concerns raised by Summit ultimately were resolved, and the appeal was ordered withdrawn on March 2, 2004. A true and correct copy of the Notice of Appeal filed by Summit Township is included in the Appendix to Motion for Summary Judgment at App. 683 - 689.

21. On June 29, 2004, in accordance with the 2003 COA, the MTSA and Millcreek submitted the Special Study to the Department for its review and approval. A true and correct copy of the letter I sent to the Department enclosing the Special Study is included in the Appendix to Motion for Summary Judgment at App. 185. A true and correct copy of Volume I of the Special Study is included in the Appendix to Motion for Summary Judgment at App. 186 - 413.

22. To date, MTSA and Millcreek have accomplished significant portions of their obligations under the 2003 COA.

23. First, even before the Department approved the Special Study, MTSA and Millcreek completed the Zimmerly Road relief sewer and it was operational by September 20, 2004. The Zimmerly Road relief sewer addressed the cause of the overflows at the 51st and 52nd Streets and Zimmerly Road. The Special Study found that the 10" sewer line along Zimmerly Road ("the Zimmerly Road line") and the 18" Beaver Run sewer were at or over capacity and needed to be relieved. The capacity problem in the Zimmerly Road line caused the need to discharge from the 51st and 52nd Streets and Zimmerly Road location in order to protect nearby homes from have sewer backups in their basements. Since September 20, 2004, the Zimmerly Road sewer has, in fact, had adequate capacity to handle both normal flows and storm flows, and there have been no instances of overflows associated with the 51st and 52nd Streets and Zimmerly Road location since the relief line became operational. The project completed by MTSA and Millcreek fixed the capacity problem at that location. This work was completed at a cost of \$125,995.04.

24. Second, the capacity problem in the 18" Beaver Run sewer has been addressed. That capacity problem caused the need to discharge from both the Larchmont and Beaver Streets

and the Church, Patton and Pershing locations in order to protect nearby homes from having sewer backups in their basements. Millcreek has implemented both an interim and long-term solution for this problem.

25. To address this problem in the interim, MTSA and Millcreek have created a temporary relief sewer for the 18" Beaver Run sewer until the Peach Street Interceptor is constructed, which ensures that no further discharges will occur at the two locations impacted by the overcapacity of the Beaver Run sewer. MTSA and Millcreek has developed a system to shift flows from the Beaver Run sewer to the Peach Street sewer. MTSA found a location on the Beaver Run sewer in the area of the Millcreek Mall that was only approximately 60 feet away from the Peach Street sewer that could serve as a point to transfer flows over the surface via a pump and flexible hose. This "over the surface" solution acts in the same fashion as the long-term solution. Consequently, MTSA purchased a 6" pump, 60 feet of 6" flexible hose and made modifications to the Beaver Run sewer to accept the suction line of the pump. The cost of this equipment and work was in excess of \$25,325.00. The pump has the capacity to pump 2.0 MGD, which is more than what is needed to ensure that the Beaver Run sewer will not exceed its capacity and cause overflows at those two locations.

26. The MTSA also has contracted with Chivers Construction Company ("Chivers") to operate the system when it is needed. Once it is recognized that flows are backing up in the Beaver Run sewer during a storm event, Chivers is contacted and they immediately bring the pump system to the Millcreek Mall location and begin operating it. The cost to MTSA and Millcreek to have Chivers operate this pump station is approximately \$136.00 per hour or \$3,264.00 per 24-hour period.

27. There is an economic incentive for MTSA and Millcreek to operate the "over the surface" pump system and prevent discharges from the two affected locations. Under the 2003 COA, MTSA and Millcreek must pay stipulated penalties in the amount of \$5,000.00 to the Department for discharges from the two affected locations. In addition, the PA Fish Commission has been fining MTSA \$2,500.00 for each event. Thus, a discharge from these locations would cost MTSA and Millcreek \$7,500.00 in penalties. Therefore, it costs MTSA and Millcreek significantly less to operate the "over the surface" pump system than it would be to have an overflow from these two locations. In most cases, the length of time for an overflow is much less than a full 24-hour period, and as such, in most cases the economic incentive for MTSA and Millcreek to use the "over the surface" pump system is significant.

28. The long-term solution to the capacity problem in the 18" Beaver Run sewer is to install the Peach Street Diversion. The work for this Diversion has been put out to bid and bids are to be received on April 18, 2006. The Peach Street Diversion is expected to be operational by mid-late summer 2006. This work is expected to cost approximately \$129,000.00.

29. Third, MTSA and Millcreek have made significant strides in their efforts to investigate and eliminate inflow and infiltration in the sewer system that is served by the Kearsarge pump station. In March 2004, MTSA and Millcreek passed new ordinances, resolutions and rules and regulations to enable them to better enforce against illegal connection to their sanitary sewer system. Based on a comprehensive inflow and infiltration study conducted on the Kearsarge pump station area from 2000 to 2002 by the MTSA, MTSA and Millcreek identified a number of areas where it was suspected that large amounts of storm water was entering the sewer system and impacting the Kearsarge pump station area. A true and correct copy of the project study area is included in the Appendix to Motion for Summary

Judgment at App. 699. As a result of that study, and armed with the new authority given to it by the Ordinance, Resolutions and Rules and Regulations, MTSA and Millcreek began to systematically inspect neighborhoods and individual homes for illegal connections. To date, MTSA and Millcreek have inspected over 420 homes since the passage of the Ordinance, Resolutions and Rules and Regulations. As a result of those inspections and subsequent enforcement actions, 72 illegal connections have been removed to date, with more expected to come. It is estimated that the removal of these 72 illegal connection removed a minimum of 104,000 gpd and an estimated peak flow of 0.5 mgd during a normal storm event. Since 2000, the investigation and abatement work related to the Kearsarge area have cost \$381,176.85. A true and correct copy of a summary of the inspections and enforcement taken to date by MTSA and Millcreek is included in the Appendix to Motion for Summary Judgment at App. 526 - 541.

30. With respect to the areas that impact the Zimmerly Road sewer line (and hence the overflows at the 51st and 52nd Streets and Zimmerly Road location), MTSA and Millcreek have eliminated more than 31 illegal storm water connections that were impacting that area during storm events. It is estimated that on average, the removal of these illegal connections has reduced peak flows through the Zimmerly Road line by at least 0.22 MGD instantaneous flow. With respect to the areas that impact the Beaver Run Interceptor (and hence the overflows at the Larchmont and Beaver Streets and Church and Patton and Pershing Streets locations), MTSA and Millcreek have eliminated 41 illegal storm water connections that were impacting that area during storm events. It is estimated that on average, the removal of these illegal connections has reduced peak flows through the Beaver Run Interceptor by 0.295 MGD instantaneous peak flow. Thus, the inflow and infiltration work performed by MTSA and Millcreek to date already has made up the 0.3 MGD shortfall of capacity for peak flows in the Beaver Run Interceptor. The

elimination of these illegal connections has removed a significant volume of storm water that was contributing to the overflows, which had to be pumped out of each of the three locations. Since September 9, 2004, there have been no overflows at any of these three locations, even though the Kearsarge pump station has had overflows on 6 occasions since that time due to storm events.

31. Fourth, MTSA and Millcreek completed the electrical renovations needed at the Kearsarge pump station. These renovations included variable frequency drives, controls and wiring. The cost of these renovations was \$222,843.15.

32. Fifth, MTSA and Millcreek have completed their investigation of the homes that need backflow preventors. Ultimately, it was determined that only six homes needed backflow prevents. It was discovered that the sewer pipes from these homes were at an elevation that was lower than the hydraulic grade line of the Kearsarge pump station. Accordingly, these homes were especially susceptible to sewer backups in their basements. MTSA completed installation of those backflow preventors in February 2006. This work provides further assurance that basements will not be flooded, thereby eliminating the need to have overflows in this area. The cost of the investigation and installation of the backflow preventors was \$14,539.70.

33. Sixth, MTSA and Millcreek have made significant progress on the major project of the Special Study. In addition to the Special Study, MTSA and Millcreek also submitted a Special Study Addendum as a result of a large storm event that hit the area after the initial Special Study was submitted to the Department. This Addendum increased the size of the proposed overflow retention tank from 500,000 gallons to 2.3 million gallons. The Special Study, its addendum and associated work cost approximately \$270,000.00. A true and correct

copy of the Special Study Addendum is included in the Appendix to Motion for Summary Judgment at App. 542 - 599.

34. Subsequent to the submission of the Special Study Addendum, in late 2005, MTSA and Millcreek encountered a problem with the site location for the 2.3 million gallon tank. The property on which the tank was to be located is owned by Millcreek Township, but it contains use restrictions that would prohibit the placement of the tank on that property. The property had been donated to Millcreek many years ago, subject to these restrictions. MTSA and Millcreek sought to obtain court approval to lift the restrictions, but neighbors living across from the Kearsarge pump station objected.

35. As a result of the delays caused by the neighbors' intervention, MTSA and Millcreek acquired property adjacent to the restricted property and to the Kearsarge pump station that does not have any use restrictions. Due to the configuration of this new property, MTSA and Millcreek had to modify the retention tank system from one 2.3 million gallon tank to two tanks that equal 2.3 million gallons. MTSA notified the Department of the problem in writing on December 8, 2005. A true and correct copy of the letter to the Department is included in the Appendix to Motion for Summary Judgment at App. 612 - 613.

36. On March 16, 2006, MTSA and Millcreek awarded the bids for the upgrade of the Kearsarge pump station and the overflow retention tanks. The estimated cost of that work, based on the awarded bids, is \$3,194,165.80. The work is expected to begin this summer and be completed no later than the deadline under the 2003 COA. Under the 2003 COA deadline, the storage tanks and the accompanying improvements to the pump station must be completed on or before March 26, 2007, with the overflow removed by April 25, 2007.

37. In summary, the total cost to MTSA and Millcreek under the 2003 COA, including civil penalties, is \$4,451,795.54. MTSA and Millcreek have paid a total of \$67,500.00 in civil penalties. In addition, MTSA and Millcreek have paid fines totaling \$21,250.00 to the PA Fish Commission. Lastly, the work required under the 2003 COA has and will cost MTSA and Millcreek approximately \$4,363,045.54.

38. Pursuant to the 2003 COA, MTSA has spent or committed in excess of \$4.36 million on corrective measures to address the violations alleged by the Plaintiffs in their complaint.

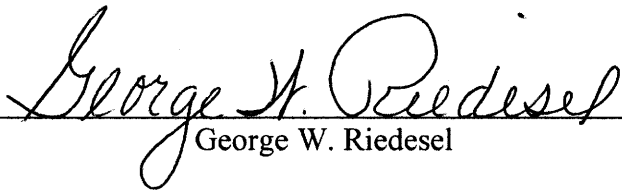
39. In their Complaint, Plaintiffs allege that there were discharges at the Kearsarge pump station on November 7, 2000 and August 16, 2001. Both of these discharges were one time events caused by system malfunctions that have been repaired.

40. With respect to the November 7, 2000 discharge, this was caused by a malfunction in the seal on the overflow at the Kearsarge pump station. This problem was solved shortly after it was discovered and there have been no seal failures since November 7, 2000. A true and correct copy of the letter sent to the Department by MTSA at the time explaining the problem is included in the Appendix to Motion for Summary Judgment at App. 694.


41. With respect to the discharge alleged to have occurred on August 16, 2001, contrary to Plaintiffs' allegation, the overflow that occurred on August 16, 2001 did not occur at the Kearsarge pump station and was not even associated with the area served by the Kearsarge pump station. Rather, the overflow was caused at a different pumping station by a power surge that caused the pumps to shut down and then not restart. The suspected problem has been since repaired. A true and correct copy of the letter sent to the Department by MTSA at the time

explaining the problem is included in the Appendix to Motion for Summary Judgment at App. 695 - 698.

42. In the Complaint, Plaintiffs allege that a discharge occurred at the Kearsarge pump station on December 14, 1999. On that same date, MTSA submitted a written notification to the Erie County Department of Health ("ECDH"). A true and correct copy of the written notification to ECDH is included in the Appendix to Motion for Summary Judgment at App. 700. This notification was made pursuant to an arrangement worked out with the Department under which the ECDH would be notified when bypasses occurred. A true and correct copy of the letter from MTSA to the Department outlining the notification procedure is included in the Appendix to Motion for Summary Judgment at App. 701 - 703.

  
George W. Riedesel

Sworn to and subscribed before me  
this 30<sup>th</sup> day of March, 2006.

  
Notary Public

